# **NET310**

# **Fundamentals of Web Dynpro for ABAP**

#### **COURSE OUTLINE**

Course Version: 18 Course Duration:

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# **Typographic Conventions**

American English is the standard used in this handbook.

The following typographic conventions are also used.

This information is displayed in the instructor's presentation	<b>—</b>
Demonstration	<b>&gt;</b>
Procedure	2 3
Warning or Caution	1
Hint	
Related or Additional Information	<b>&gt;&gt;</b>
Facilitated Discussion	•—
User interface control	Example text
Window title	Example text



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# **Course Overview**

#### TARGET AUDIENCE

This course is intended for the following audiences:

• Developer



# **Introduction to Web Dynpro**

### **Lesson 1: Outlining the Benefits of Web Dynpro**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the programming approach of Web Dynpro
- Identify the benefits of the metadata approach of Web Dynpro

## **Lesson 2: Displaying Web Dynpro Component Architecture**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Explain the main elements of Web Dynpro
- Explain the context and data transport

# **Lesson 3: Navigating Between Views**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

· Set up navigation between views

# **Lesson 4: Creating View Assemblies**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

Create view assemblies

# Lesson 5: Identifying Web Dynpro Entities and Relationships

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Differentiate between internally and externally visible Web Dynpro entities



# **UNIT 2** Web Dynpro Controllers

# **Lesson 1: Outlining Controller Types and Entities**

## **Lesson Objectives**

- Differentiate the controller types
- Outline the structure of component and custom controllers
- Outline the structure of view and window controllers

# **Web Dynpro Context**

# **Lesson 1: Creating Context Nodes**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

Create a context node with attributes

# **Lesson 2: Setting Context Node Properties**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- · Explain the cardinality property
- Set the singleton property of a context node

# **Lesson 3: Sharing Data Between Controllers with Context Mapping**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Define internal context mapping



# **Web Dynpro User Interface**

## **Lesson 1: Defining the View Layout**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Differentiate UI elements
- Define the layout using container elements
- · Add UI elements to the layout

## **Lesson 2: Controlling UI Element Behavior with Data Binding**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Bind UI element properties to context attributes
- Control UI element behavior

# **Lesson 3: Using Composite UI Elements**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Outline UI composite element hierarchy
- · Bind a table UI element and its child elements to the context
- Set the selection property for table UIs

# **Lesson 4: Creating Static Context Menus**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Create static context menus



# **Controller and Context Programming**

## **Lesson 1: Outlining Controller Methods and Attributes**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- · Explain how hook methods are processed
- · Use controller method
- Use controller attributes

## **Lesson 2: Accessing the Context at Runtime with Controller Methods**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Access the context of a controller
- Access the context node elements

# **Lesson 3: Adding New Elements to a Context Node**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

· Add new elements to a context node

# **Lesson 4: Implementing Supply Functions**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

Use supply functions



# Internationalization and Messages

# Lesson 1: Using ABAP Dictionary Texts and the Online Text Repository (OTR)

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Use data element texts in Web Dynpro
- Use OTR alias texts in Web Dynpro

## **Lesson 2: Implementing an Assistance Class**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

Define translatable texts in an assistance class

## **Lesson 3: Reporting Messages**

#### **Lesson Objectives**

- Define a message area
- Report messages
- Report messages of the TEXT category
- Report messages of the T100 category
- Report messages of the EXCEPTION category



# UNIT 7 Value Help, Semantic Help, and Keyboard Access

### **Lesson 1: Providing Value Help**

#### Lesson Objectives

After completing this lesson, you will be able to:

- Use dictionary value help
- Use a value suggestion

### **Lesson 2: Providing Value Selectors**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

Implement value selectors

# **Lesson 3: Providing Semantic Help**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Define tooltips for UI elements
- Define input prompts for input fields
- Define explanation property of UI elements
- Display field-dependent help text
- Define UI-element-independent explanation texts
- Use the Help Center

# **Lesson 4: Providing Keyboard Access**

#### Lesson Objectives

After completing this lesson, you will be able to:

• Provide access to UI elements using keyboard commands

# **Component Reuse**

# **Lesson 1: Reusing Web Dynpro Components**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Define a component interface

## **Lesson 2: Declaring a Component Usage**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Declare the usage of a component in another component
- Use a component usage at runtime
- Embed an interface view of a component usage
- Call methods defined in the interface controller of a component usage

# **Lesson 3: Implementing Advanced Aspects of Component Reuse**

#### **Lesson Objectives**

- Subscribe to the events defined in the interface controller of a component usage
- Define context nodes in a component interface controller



# **Dialog Boxes**

# **Lesson 1: Creating Dialog Boxes**

## **Lesson Objectives**

- Differentiate between dialog boxes in Web Dynpro
- Create an external dialog box
- Create a confirmation dialog box
- Create and open a dialog box displaying a window of the same component
- Create and open a dialog box displaying an interface view of a component usage

# **Adaptation Techniques**

## **Lesson 1: Adapting Web Dynpro Applications**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

· Adapt Web Dynpro applications

### **Lesson 2: Configuring Web Dynpro Applications**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Configure Web Dynpro applications

## Lesson 3: Identifying the Available Enhancements for Web Dynpro

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Identify the available enhancements for Web Dynpro

# **Lesson 4: Modifying the Context at Runtime**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

Create context nodes and context attributes dynamically

# **Lesson 5: Modifying the UI at Runtime**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Modify existing UI elements at runtime
- Create new UI elements in the UI element hierarchy at runtime

SAP

# **UNIT 11 SAP List Viewer for Web Dynpro ABAP**

# Lesson 1: Using SAP List Viewer (ALV) in Web Dynpro for ABAP

## **Lesson Objectives**

After completing this lesson, you will be able to:

• Display mass data with the SAP List Viewer (ALV) for Web Dynpro ABAP



# **Web Dynpro Select Options**

# **Lesson 1: Using Web Dynpro Select Options**

#### **Lesson Objectives**

- Integrate the Select Options component into your Web Dynpro component
- Display selection criteria for searching in data sets
- Access the user's input programmatically and use it to read the model data



# Web Dynpro Application Troubleshooting

# **Lesson 1: Monitoring Web Dynpro Applications**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

· Monitor Web Dynpro applications

## **Lesson 2: Debugging Web Dynpro Applications**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Debug Web Dynpro applications

## **Lesson 3: Analyzing Applications at Runtime**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

· Analyze applications at runtime

